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POPULATION.

Area, Population, Birthplace, Migration and Conjugal Condition.

*Area.*¹—The area of a country means not the number of square units of surface it actually contains, but the number it would contain if every part lay exactly at the level of the sea with no allowance for elevation or irregularities of surface. The area of any considerable portion of the earth's surface, such as a state or county, is measured not on the earth itself but on a map representing it and hence the accuracy of the measurement depends upon that of the map. Within the United States all degrees of accuracy in surveys and maps may be found from the brilliant results achieved by the Coast and Geodetic Survey to the uncertainty in the location of the boundary lines between Virginia and West Virginia or around Alaska, an uncertainty which leaves ample room for an error of some hundreds of square miles in the former case and of some thousands in the latter. In general it is probably true that the boundaries of the country are located and mapped more accurately than those of the states, and these again more accurately than those of the counties. Hence the confidence to be felt in an official statement of the area of a part of the United States varies with the extent of territory, the larger it is, other things equal, the less the probable margin of error. This country contains no island states but on its borders are eight island counties, two on the Pacific coast, two in the Great Lakes, and

¹As the writer has treated the subjects of Area, Population, and Density of Population at greater length in recent publications of the Association, he may refer to American Economic Association, *Studies*, :20~257 and 385-455.

four on the Atlantic. Six of these have been measured by a competent expert on the accurate maps of the Coast or Lake Surveys and the results given out by the Census Office in 1890¹ depart from his conclusions by from five to thirty-one per cent. The area of Long Island, including adjoining islands, is given as 1007 square miles, while its true area is within one per cent of 1353.8. It would have been helpful to students if the facts regarding the determination of areas and the degree of confidence to which they are entitled had been mentioned in the publications of the Census Office.

Population.—The population of the earth as a whole is an unambiguous phrase, for it can mean nothing else than the number of people living on the earth. But the phrase, population of a country, demands definition of the word country before it is clear. Country like continent or island may mean a certain part of the earth's land surface or like family or state it may mean an organized group of human beings. In the former sense one may speak of the area of a country but not of the area of a tribe, in the latter sense one may speak of the opinion of a country but not of the opinion of an island. In the phrase, the population of a country, as popularly understood neither of the two meanings is excluded. If country means only a certain portion of land surface, the relation its population would sustain would be merely that of physical presence. If country means also an organization of human beings various other relations may be conceived such as domicile or citizenship. In the former sense of country its population is the number of human beings on it at a certain moment, in the latter sense its population is the number of residents. The latter is the usual popular

¹ Eleventh Census. Bulletin 23.

meaning of population, the former is its technical and scientific meaning, for if a word is to be used for purposes of scientific investigation, it must be susceptible of such definition as to facilitate the inclusion or exclusion of any case that arises. The test of physical presence or absence at a certain moment can be easily and accurately applied, the test of residence is often a puzzle even to the courts and turns largely upon a careful balance of probabilities regarding intent. Hence the trend of European practice has been to define population for census purposes by physical presence, but in this regard American custom follows popular usage and the population of the United States means the number of inhabitants on the census day.

The word population is used in the census volumes in three senses: (1) all the inhabitants of the country; (2) all except those on Indian reservations or in Alaska; (3) the inhabitants of the states alone, excluding also the territories. These are called respectively the total or aggregate population, the general population and the constitutional population. It would increase the value of the twelfth census if the suggestion made in the Eleventh Census¹ could be adopted and the first and second meanings made to coincide by including the people on reservations under the general population.

Probably the best test of the accuracy of a census is its agreement with the results of previous and subsequent counts. Over one-fourth the people of the United States (twenty-seven per cent) have been counted by state authority since 1890 and a comparison of these results shows that the last federal enumeration was probably within one per cent of the truth. I believe that the faults of census legislation and administration have

¹ Population, 1: c.

impaired public confidence in the results here considered more than the facts warrant.

Density of Population.—The density of population means the number of persons to a unit of surface and thus is an abstract measure of the isolation, proximity or crowding of the population. The smaller the divisions of a country for which the area and population are known, the more detailed and fruitful the study of the density of population may be made.

The census authorities might consider the wisdom of ordering in connection with the twelfth census a special study of cities in the United States above a certain limit of size, say 25,000. If this were done a careful determination of the density of population of each as a whole, and where possible by wards, would lead to important results. The effort in that direction made by the eleventh census, the preliminary results of which appeared in Bulletin 100, was apparently not carried to completion and the only inferences that can be drawn from the census volumes regarding the density of population of our cities by wards are to be gathered from a table showing the number of persons to a dwelling in each ward of every city.¹ A dwelling was defined² as any building or place of abode in which any person was living. A tenement house was considered one house but a building with a dividing partition wall and separate front doors was two or more dwellings. In New York city there were over eighteen persons to a dwelling while Hoboken had thirteen, Holyoke, Mass., eleven and no other city large or small more than ten. In the cities of the United States there were twenty-eight wards with over fifteen persons to a dwelling. Of the

¹ Eleventh Census. Compendium, 1: 880-897.

² Eleventh Census. Instructions to Enumerators, 19.

twenty-four wards in New York, twenty were among these twenty-eight most crowded wards in the country, while of the eight remaining, one was in Brooklyn and two in Hoboken. The fourteen most crowded wards in the country measured by this test are all in New York. If the next census should decide to make a study of the density of population of our cities as wholes or by wards, it might consider the wisdom of deducting from the total area of each city the amount occupied by water surface, parks, streets, etc., thus arriving at the built-up surface. That such an effort if successful would result in very different figures and order of density from that reached by the ordinary method is shown by the following table for ten European cities.¹

City.	Density per acre of total area.	Density per acre of built-up area.
Genoa	23	378.
Berlin	77	266.
Milan	60	261.
Vienna	53	238.
Venice	98	215.
Paris	118	159.
Florence	16	144.
Turin	62	119.
Hamburg	27	107.
Dresden	31	104.

In the preceding figures the error committed in Bulletin 100 of the eleventh census has been avoided at least for the Italian cities and the built-up area has been compared with the population living upon it and not with the entire population of the city.

Center of Population.—This concept is defined as “the center of gravity of the population of the country

¹ *Journal de la Société de Statistique de Paris*, 25: 486 quoting *Annales de Statistique du Royaume d'Italie*, vol. 9 (1884).

each individual being assumed to have the same weight." It seems open to some objections. Under the definition given the center of the world's population would be a point probably nearer the center than the surface of the earth. Granting that this is not consistent with the explanation made in an earlier census that the country (or earth) is treated as a plane surface, it may still be urged that to regard all individuals as of equal weight and to assume that the influence of each in determining the situation of the center of population increases with his distance from the center involve very questionable postulates. Statistical arguments constantly exaggerate the resemblances between physical and social phenomena. The individual like the atom is counted always as one, never more or less. While individuals differ in physical weight, they vary far more in social influence. A physical body may be controlled by gravity, a population is directed by public opinion. In fixing the center of gravity of a physical mass a unit gains power by remoteness, but in forming the public opinion of a social group a unit loses power by the same fact. If the center of population is to be accepted as an admissible social concept rather than an illegitimate transfer of a physical notion, its definition in my judgment should be changed. The residents of Hawaii or the Philippines should not have increased influence because of their remoteness. To be true to social conditions their influence should be deemed less. But as no measure of this diminution of influence might easily find acceptance, the notion of the *median point* of population might be substituted for that of the center. This is a point such that half the population of the country lies east and half west of its meridian, half north and half south of its parallel. It offers the practical advantage

of being far easier to locate than the center,¹ and also, I believe, the advantage of being nearer the average man's interpretation of the term.

Birthplace.—Before seeking to interpret any census figures, effort should be made to determine the degree of confidence to be placed in them. An error in the statement of birthplace might arise from ignorance or from intention. It is not improbable that among the negroes and the more ignorant native whites an appreciable proportion did not know the state in which they were born. Many immigrants, especially such as came in childhood, may not have known in what country they were born. Other immigrants, who had become Americanized, may have misrepresented the facts deliberately to the enumerators. It has been estimated that the latter personally met about one person in seven. If so, the information regarding the birthplaces of the other six-sevenths must have been derived second hand and hurriedly. Such considerations lead one to conclude that errors in the returns of birthplace may have been common. Can any evidence in favor of or against this possibility be derived from analyzing the figures? Birthplace and birth time are related facts. If one does not know his birth time, and so his age or the ages of the family for which he is answering, it would afford some support for the belief that he may not be accurate in returning birthplace. The degree of inaccuracy in the return of ages may be estimated from the figures themselves. When an age is incorrectly reported, it is likely to appear as a round number, most often a multiple of ten, less often as an odd multiple of five, least often as a multiple of two but not of ten. The evident errors in the table of ages may

¹ In 1890 it was about seventy miles northeast of the center of population and near the western boundary of Ohio in Darke county.

be corrected with more or less success by mathematical processes. A study of the table shows that persons are more apt to misstate their age as they advance in years.¹ Probably the same is true of birthplace. In measuring the tendency in various states and social classes to concentrate on certain years of age I have employed the following method: The entire number of persons between twenty-eight and sixty-two years of age inclusive was found from the age tables. Then it was assumed that the true number of persons who were thirty, thirty-five, forty, forty-five, fifty, fifty-five or sixty years of age would be one-fifth of the former sum. The sum of those actually reported at one of these seven ages was also derived from the tables, and was found uniformly to exceed the true number as computed. The percentage of excess gives an approximate measure of the inaccuracy with which the ages of adults are reported. From such a table it appears that the ages of foreign born whites are reported with about double the inaccuracy prevalent among native whites, and those of negroes with about double the inaccuracy of the white immigrants. Hence it seems probable that statements regarding the birthplace of negroes are to be given less confidence than those regarding the birthplace of whites. In favor of the accuracy of the returns of birthplace of the foreign born it may still be urged that the country of birth is less likely to slip the memory than the year or the state. It may be granted that, other things equal, foreigners report the country of birth more accurately than natives do the state. But this can hardly outweigh the greater ignorance of the foreign population. Foreigners or certain classes of foreigners have a deeper and more widespread prejudice to encounter than that against the

¹ Am. Stat. Assn. *Publications* 5 : 133, (1896).

natives of any American state, and this feeling would create or strengthen the motives for misrepresentation. Some further evidence may be derived from the figures for native and foreign born whites by age and sex. In 1880 among every 10,000 native whites 5,051 were males. In 1890 among every 10,000 native whites ten years of age and over 5,067 were males. The latter class must have been the survivors of the former, and yet the proportion of males has increased by 16 in 10,000. If this were correct it would be due to a higher mortality of females. Assuming that the average number of native whites during the decade was the arithmetic mean between the number in 1880 and the number over ten in 1890, and that the annual number of deaths was one-tenth the decennial decrease, the death rate for males was 10.2 and for females 10.9. It seems doubtful whether such an excess in the female death rate is more probable than the return of a certain number of foreign born males as native. The excess of males in 1880 among the native whites increased in 1890 among the survivors by nearly 75,000. In 1880 there were nearly a quarter of a million more male than female children under fifteen among the native whites. In 1890 the excess between ten and twenty-five had fallen to less than sixty thousand. But in 1880 among the native whites between fifteen and fifty there were only sixty thousand more males than females, while in 1890 the excess of native white males between twenty-five and sixty was a third of a million. If this surprising distribution of the excess be due in an appreciable degree to misstatements of foreign born males, it should be especially apparent in the northern and western states where the foreign born whites are over one-fifth of the

total white population, and of little influence in the southern states, where they are less than one twenty-fifth. Above the age of twenty the proportion of males among the native whites in the northern states is uniformly greater than in the southern states, as the following table shows :

PROPORTION OF MALES IN 1890 AMONG NATIVE WHITES.

Age group.	MALES IN 10,000.		
	Southern states.	Northern states.	Excess in northern states.
20-24-----	4981	5003	22
25-29-----	4984	5070	86
30-34-----	5142	5163	21
35-44-----	5125	5167	42
45-54-----	4944	5095	151
55-64-----	4987	5160	173
65 +-----	5032	5021	--11

On the whole it seems probable that a certain number of foreign born residents were reported as natives, that this was more common among males than females either because they were more numerous, less informed, less veracious, or less likely to be seen personally by the enumerators and so to render accurate information. Many a boarding-house keeper must have reported for lodgers whose birthplace was unknown. This tendency to call oneself a native apparently increases with age and the progressive Americanization it involves.

Proportion of Foreign born Population in the United States.—It appears from the following table that no other country in the northern hemisphere has received so large a portion of its population from abroad. The percentage of foreign born in the population of various countries was as follows :

PERCENTAGE OF FOREIGN BORN.		
Country.	Date.	Percent of foreign born.
Seven Australasian Colonies-----	1891	32.6
Uruguay -----	?	30.0 (?)
Argentine Republic -----	1895	25.3 (?)
United States -----	1890	14.8
Canada -----	1891	13.4
Luxemburg-----	1890	7.6
Switzerland -----	1888	6.4
Belgium -----	1890	2.8
Bulgaria -----	1888	2.8
France -----	1891	2.2
Netherlands -----	1889	1.7
Greece -----	(1879)	1.6
United Kingdom -----	(1891)	1.1
Germany -----	(1890)	1.0
Austria-Hungary -----	(1890)	.6
Sweden-----	1890	.5
Spain-----	1887	.4
Italy -----	(1881)	.2

The United States have about half the proportion of foreign born found in three countries of the southern hemisphere, about the same proportion as in Canada and about twice the proportion of the European states with most foreigners, viz., Switzerland and the diminutive Grand Duchy of Luxemburg, smaller and less populous than Rhode Island.

Proportion of Native Population in Foreign Countries.—The converse of the number of foreign born in the United States is the number of American born in foreign countries. Our twelfth census might well attempt, as do those of some other countries, to report the number of Americans by birth residing outside the United States, and as an effort in this direction the following table has been compiled mainly from the census reports of foreign countries :

PERSONS OF AMERICAN BIRTH LIVING ABROAD.

Country of Residence.	Date.	Number.
Canada	1891	80,915
United Kingdom	1891	31,412
Germany	1890	17,550
Seven Australasian Colonies	1891	8,139
Austria-Hungary	1890	2,099
Hawaii	1890	1,928
Sweden	1890	1,482
Italy	1881	1,286
India	1891	1,091
Switzerland	1888	986
Chile	1885	924
Japan	1890	899
Belgium	1890	414
Costa Rica	1892	204
Korea	1895	90
Samoa	1895	26
Total		149,445

The two countries not on the list which have probably the greatest number of American born are France and Mexico. In France there were, in 1886, 10,253 persons whose nationality was returned as American North or South. It may be fairly assumed that the number of persons born in the United States and residing in France in 1891 was between five and ten thousand.

The absence of any figures for Mexico reduces one to an estimate. For this purpose I have assumed that the Americans in Mexico bear the same proportion to the Mexicans in the United States that the Americans in Canada do to the Canadians in the United States. This gives the proportion: 980,938 Canadians in the United States are to 80,915 Americans in Canada as 77,853 Mexicans in the United States are to the estimated number of Americans in Mexico, which is thus found to be 6,442. If this should be deemed too small an estimate, attention may be called to the barriers of lan-

guage and of a lower standard of life for the working classes south of the Rio Grande, and also to the fact that in all the eighteen counties along our Mexican frontier, from which emigration would mainly go out, there are fewer than one hundred thousand (97,183) natives of the United States, and over one-fourth of them (25,577) are in southern California, where the motives for crossing the Mexican frontier must be weak. On the whole it seems probable that the natives of the United States who have emigrated to foreign countries are between 165,000 and 175,000, and I will assume the number of 170,000.¹ To find the proportion this constitutes of our total native population the number of natives living in the country must be known. The census, which reports 53,372,703, does not include the persons in Indian territory or Alaska, or on reservations. One may assume that all Indians and the negroes of Indian territory are natives. Of the persons of other races living with Indians on reservations 98 per cent are in Indian territory or Oklahoma, and may most fairly be compared with the white population of Texas, where 91.3 per cent are native. Hence to the number just given the following may be added :

Indians on reservations or in Indian territory----	187,447
Negroes in Indian territory -----	18,636
91.3 per cent of the remaining 117,381 residents of Indian territory or reservations -----	107,200
Natives in Alaska -----	15,389
 Total additions -----	 330,672
Natives returned by census -----	53,372,703
Natives abroad -----	170,000
 Total natives of United States -----	 53,873,375
Percent. of total natives who have emigrated----	.32

¹ The 18,000 "Americans" mentioned in Liberia must be mainly African born descendants of emigrants.

This table shows that only about one in three hundred natives of the United States has emigrated, while as seen before more than one in seven of the resident population is an immigrant. Probably no country has so large a proportion of immigrants and at the same time so small a proportion of emigrants as the United States.

No direct and conclusive information upon this point for Argentine Republic and Uruguay is obtainable, but it may be noted that in twenty-one years, 1873-1893, the emigrants from the Argentine Republic were over half a million and more than one-third of the immigrants, while in Uruguay the emigrants for the six years, 1884-90, were nearly three-fifths as many as the immigrants.¹

In the case of natives of the seven Australasian colonies the Scotch census of 1891 reports the number found in Scotland, but similar information is lacking in the English and Irish censuses. On the assumption that in England and Ireland the ratio of natives of Australasia to all natives of British colonies and India was the same as it was in Scotland,² there were over twenty thousand natives of Australasia in the United Kingdom, two-thirds as many as the natives of the United States there. Taking into account the enormous difference in the number of natives of the two regions the return current from Australasia to the United Kingdom is about fourteen times as strong as the return current from the United States to the mother country.

Of the total number of natives of Canada in Canada

¹ 72,704 emigrants and 126,391 immigrants.

² Natives of Australasia in Scotland (1891), 2,063. Natives of all British colonies, including India, in Scotland, 13,607; in England and Wales, 111,627; in Ireland, 8,430. Estimated natives of Australasia in United Kingdom, 20,265. Number in India, 845; in United States, 5,984; in Australasia, 2,561,865. Minimum percentage abroad, 1.0.

and the United States nearly nineteen per cent are in this country. It seems clear, therefore, that when both immigration and emigration are considered the United States has gained more and lost less population than any other country.

A study of the table giving the natives of the United States abroad shows that probably no country in Europe or Asia has received from this country a larger immigration than it has contributed. The same is true of Africa except for Liberia, which may be regarded as a localization of the return current attendant upon all strong currents of migration. The adjacent countries of this continent have also sent hither many more natives than they have received in return. Lack of data makes a comparison for the West Indies, and Central and South America impossible, but it is not unlikely that in every important case, except possibly the Argentine Republic and Uruguay, the northward current has been the stronger. In fact the only direction in which the United States has sent a demonstrably stronger current of migration than it has attracted has been over the Pacific to Hawaii and the Australasian colonies.

From scattered data relative to earlier foreign censuses it seems probable that the emigrants from the United States increased during the last decade more slowly than the native population.

Foreign born in American cities.—The high proportion of foreigners in the urban population of the United States is deemed by the census proof of a tendency to cling to the cities. Thus it is said: "If the proportion of the foreign born in the principal cities is contrasted with the proportion of the foreign born in the country at large, a very fair measure is obtained of their aptitude for urban life" and "the element of foreign birth

seeks the cities with far greater avidity than does the element of native birth."¹ But it appears that "of all the nationalities considered, the Mexicans showed the least appetency for urban life."²

The last statement suggests that the difference may be in the circumstances rather than the people. Natives enter the United States by birth and this occurs mainly in the country, foreigners enter it by migration and this occurs mainly at the city ports. While the feebleness of infancy is a barrier to the migration cityward of the former, ignorance of the language and customs of the country confine the great majority of foreigners for a time to some colony of their countrymen in a great city. Dispersion of either element from the place of arrival is a gradual process and is likely to be overlooked, but such a dispersion of the foreign born from our cities is in rapid progress. The increase of foreign born in the country during the last decade was 2,570,000, a number that measures the excess of the influx over the losses by death or emigration. Nearly all entered our cities and were added at the start to our urban population. In 1880 the foreign born population of our fifty largest cities was 2,330,000 and of the rest of the country 4,350,000. Assuming that all immigrants came to these cities and stayed there, the number in them in 1890 would have been 2,330,000 plus 2,570,000 or 4,900,000 plus the number of deaths among the foreign born immigrants elsewhere in the country. If there were any current out from the cities, it must have resulted first in supplying the losses from death among the rural foreign born and then in increasing the number, while its effect in the cities would appear in a decreased number of foreigners. Just these

¹Eleventh Census, Population, 1:1xxxix.

²*Ibid.*, cli.

results appear. Instead of more than 4,900,000 foreign born in these fifty cities in 1890 there were only 3,441,000. Instead of less than 4,350,000 in the rest of the country there were 5,808,000. While the additions were in the first instance to the cities and the subtractions of death were evenly distributed, the adjustment went on so rapidly that foreigners outside these cities increased 34 per cent and within them only 48 per cent. This would seem to indicate that the proportion in our large cities was increasing faster than elsewhere, but it must be remembered that these cities have had a very rapid growth, of which the arrival and stay of immigrants have been only one aspect. These cities gained in population 43.5 per cent during the decade and the rest of the country only 21 per cent. Hence relatively to population the smaller cities and rural districts of the country gained in foreign born population faster than the great cities; and the eleventh census when properly interpreted affords no evidence that between 1880 and 1890 the immigrant population as a whole remained stagnating in our great cities. The following table gives the figures for the fifty largest cities in 1880 and the same cities in 1890.

FIFTY LARGEST CITIES.

	Total Population.	Foreign born.	Percent. For- eign born.
1880-----	7,793,903	2,330,374	29.90
1890-----	11,184,031	3,441,165	30.77
Per cent of increase	43.5	47.7	.87
REST OF COUNTRY.			
1880-----	42,361,880	4,349,596	10.27
1890-----	51,438,219	5,808,382	11.29
Per cent of increase	21.4	33.5	1.02

Wide as the difference between city and country is in

the proportion of foreign born and much as the unparalleled immigration to our ports between 1880 and 1890 tended to increase it, still the percentage of foreign born has increased more rapidly in the cities of less than 56,000 people and the towns and country districts than it has in the great cities.

Interstate Migration.—Enormous as the influx of foreign born into the United States has been, the movement of the native population from state to state is even greater. The number living in another than their native state is nearly one-fourth greater than the number of foreigners in the country, and when these numbers are compared with the populations giving rise to them, the high mobility of the American population becomes yet more apparent. A study of these internal migrations is rendered difficult by the complexity of the census table.¹ This gives the natives of each of fifty-one territorial divisions residing at the time of the census in each of forty-nine divisions. A table with twenty-five hundred entries is too detailed to be intelligible. For a survey of the subject I have treated the country as composed of the five groups of states recognized by the census. The results appear in the following tables :

NATIVES OF NORTH ATLANTIC STATES.

Place of Residence.	Number in		Increase (+) or Decrease (—).	
	1880.	1890.	Absolute.	Per cent.
North Atlantic group ---	11,412,303	13,005,694	+ 1,593,391	+ 13.0
South Atlantic group ---	125,018	141,826	+ 16,808	+ 13.5
North Central group ---	1,684,774	1,550,668	— 134,106	— 8.0
South Central group ---	59,333	68,766	+ 9,433	+ 15.9
Western group -----	205,728	308,455	+ 102,727	+ 49.9
United States -----	13,487,156	15,075,409	1,588,253	+ 11.8

The preceding table shows that the natives of the

¹ Eleventh Census, Population, 1 : 560-563.

North Atlantic group who were living within that region in 1890 had increased in a decade more than the entire increase in the country. It follows that the absolute number of emigrants fell. But, as the table shows, this fall was consistent with a growth of migration to three of the four other sections of the country. The rate of increase in the number in the southern states was about as rapid as the increase at home. In 1880 the North Atlantic group retained within its limits 84.6 per cent of its natives, while in 1890 the percentage had risen to 86.3.

NATIVES OF SOUTH ATLANTIC STATES.

Place of Residence.	Number in		Increase (+) or Decrease (—).	
	1880.	1890.	Absolute.	Per cent.
North Atlantic group ---	156,467	207,010	+ 50,543	+32.3
South Atlantic group ---	7,173,979	8,325,844	+1,151,845	+16.1
North Central group ---	388,560	355,454	— 33,106	— 8.5
South Central group ---	758,271	674,942	— 83,329	—11.0
Western group -----	32,437	53,642	+ 21,205	+65.4
United States -----	8,509,714	9,616,872	+1,107,158	+13.0

This table shows that the natives of the South Atlantic states, also, during the last decade manifested a weaker tendency to migrate. Notwithstanding their total increase of over a million in the country the number in the central states north and south was less in 1890 by considerably above one hundred thousand. On the other hand the overflow from this group to the North Atlantic and Western states increased by over seventy thousand. The increase in the current to the North Atlantic states was remarkable, that region having received by 1890 sixty-five thousand more than it returned, while in 1880 it had received only thirty-one thousand more.

NATIVES OF NORTH CENTRAL STATES.

Place of Residence.	Number in		Increase (+) or Decrease (-).	
	1880.	1890.	Absolute	Per cent.
North Atlantic group ---	101,879	138,419	+	36,540 +35.9
South Atlantic group ---	48,310	67,897	+	19,587 +40.5
North Central group ---	11,807,697	15,685,746	+	3,878,049 +32.8
South Central group ---	241,129	357,105	+	115,976 +48.1
Western group -----	257,144	609,398	+	352,254 +137.0
United States -----	12,456,159	16,858,565		4,402,406 +35.4

When one considers the very rapid increase in the natives of this group of states, it is not surprising to find that the number of them in each of the other divisions has risen during the decade. The unexpected result of the preceding table is the proof it affords that emigration from the North Central states to each other group has grown at a higher rate than the total native population of the group. The net gain of the North Central group from the North Atlantic fell in ten years from 1,583,000 in 1880 to 1,412,000 in 1890, or over ten per cent. Similarly the net gain from the South Atlantic states fell from 340,000 to 288,000, or fifteen per cent, and the net gain from the South Central group fell from 310,000 to 195,000, or thirty-seven per cent, while the net loss to the Western group increased from 243,000 to 585,000.

NATIVES OF SOUTH CENTRAL STATES.

Place of Residence.	Numbers in		Increase (+) or Decrease (-).	
	1880.	1890.	Absolute.	Per cent.
North Atlantic group ---	16,066	20,963	+	4,897 +30.5
South Atlantic group ---	74,593	88,194	+	13,601 +18.2
North Central group ---	551,715	552,193	+	478 + .1
South Central group ---	7,583,235	9,465,322	+	1,881,087 +24.8
Western group -----	52,049	94,166	+	42,117 +80.9
United States -----	8,277,658	10,220,838	+	1,943,180 +23.5

This group, like the two Atlantic divisions, is characterized by a decreasing mobility of population. The

increase of natives remaining within the group has been a little faster than their total increase anywhere within the country. But in this case migration to the North Atlantic and Western states has grown faster than the return current to the South Atlantic group, while the current north has just filled the gaps left by death.

NATIVES OF WESTERN STATES AND TERRITORIES.

Place of Residence.	Numbers in		Increase (+) or Decrease (—).	
	1880.	1890.	Absolute.	Percent.
North Atlantic group ---	6,086	9,231	+ 3,145	+51.7
South Atlantic group ---	1,008	1,951	+ 943	+93.5
North Central group----	14,465	24,684	+ 10,219	+70.6
South Central group----	3,079	5,855	+ 2,776	+90.1
Western group-----	720,224	1,152,636	+ 432,412	+60.0
United States -----	744,862	1,194,357	+ 449,495	+60.4

In the Western as in the North Central states the mobility of the native population has not fallen. The very small return current to the southern states had nearly doubled during the decade, while the much more important one to the North Central states has outstripped decidedly that of the natives of the group. The low average age of the natives of this group makes the result the more noteworthy.

From the data in the preceding tables the proportion of the natives of each group in the country who were living without the group in 1880 and 1890 may be computed.

Group.	Percent. of natives living outside in	
	1880.	1890.
North Atlantic -----	15.4	13.7
South Atlantic -----	15.7	13.4
South Central -----	8.4	7.4
North Central -----	5.2	7.0
Western -----	3.3	3.5

It seems that the difference between the groups is

diminishing, long distance migration from the Atlantic and Gulf states falling off, while that from the interior and Pacific states is growing.

The following table prepared from the figures of the preceding shows the changes of migration in the groups :

Group.	Percent of total Natives of Groups residing in			
	state of birth.	some other state of group.	outside group.	Total.
North Atlantic—				
1880-----	76.8	7.8	15.4	100.
1890-----	78.5	7.8	13.7	100.
South Atlantic—				
1880-----	78.2	6.1	15.7	100.
1890-----	81.1	5.5	13.5	100.
North Central—				
1880-----	76.9	17.9	5.2	100.
1890-----	75.8	17.2	7.0	100.
South Central—				
1880-----	80.1	11.5	8.4	100.
1890-----	82.3	10.3	7.4	100.
Western—				
1880-----	88.5	8.1	3.4	100.
1890-----	86.9	9.6	3.4	100.

Natives of the Western states and next to them of the Southern states remain in greatest proportion in the state of birth, while in the interior they leave the state most frequently. In the Central and Western states the more common form of migration has been within the group, while along the Atlantic it has been to some state beyond.

Conjugal condition.—Conjugal condition means the relation of the population to the social institution of marriage. At the date of the census each person in the country was either married or not married. The not married either had never been married or had been but were no longer. The marriages of the last class must have ended either by death of the other party to the

marriage or by the dissolution of the union through a legal divorce. From the point of view of conjugal condition, therefore, the population falls into four and only four classes: (1) married, (2) single, (3) widowed, (4) divorced.

The question whether at a given time A and B were married is often difficult for a court to determine and in not a few instances the persons themselves must be mistaken about the facts. This would be true more often of the third persons by whom the information was sometimes furnished. In this subject ignorance is thus a source of some error, but probably a less important source than conscious misrepresentation. Motives to misrepresent would often affect the two sexes in opposite directions tempting the mother of an illegitimate child to report herself as married and the husband who has abandoned his wife to call himself single. It is probably for this reason in part that most censuses report the married women outnumbering married men. Thus in the United States among the persons of negro descent there were 12,181 more married women than men. It is not likely that many of these were married to white men. The large majority, I believe, is explicable as incorrect returns. The motives to call one's self single or married when one is divorced would probably appeal to a large proportion of all persons divorced and I doubt that any serious reliance should be placed upon the returns of divorced persons. There were probably not far from twenty-nine thousand divorces granted in the United States in 1890. It is not likely that divorced persons would remarry so rapidly that the actual number at any day, *e. g.*, June 1, 1890, would be only 2.3 times the number of persons annually divorced. The number of divorced persons re-

ported by a census is a function of two variables, the actual number of such persons and their average veracity, and the latter is so important that we have hardly any warrant for inferences from the reported to the actual number. The proportion of divorced persons in cities is not less than in the country at large as the census declares,¹ but for obvious reasons veracity on such topics in cities is less general. Still as persons have no ground to return themselves as divorced unless they think themselves so, the number of divorced persons returned may be regarded as a minimum limit to the true number. With these qualifications the returns of conjugal condition may be accepted as substantially correct.

As the conjugal condition of the population of the United States was not reported prior to 1890 comparison with earlier national censuses is impossible and one is compelled to rely upon state censuses. These show that the proportion of the total population which is married has tended to increase except in Massachusetts and Rhode Island.

PERCENTAGE OF TOTAL POPULATION WHO WERE MARRIED.

Year.	Iowa.	Mass.	Mich.*	New York.	Rhode Isl.
1855-----	?	?	34.1	36.1	?
1865-----	?	?	36.2	37.5	?
1875-----	?	39.1	38.9	37.8	38.5
1885-----	36.5	38.1	40.4	?	37.7
1890-----	36.6	37.7	40.0	38.4	37.5
1895-----	37.2	37.7	40.3	?	?

* The state census of Michigan is taken four years after the national census *i. e.*, 1854, 1864, etc.

While no clear results appear from the table, yet in the two states of New York and Michigan in which the figures extend over about twice the period of the other states, the tendency has been towards an increase in the

¹ Eleventh Census Population I : clxxxvii.

proportion of married persons in the total population. Probably the majority of states have changed in the same direction during the period.

The increase in the proportion of married persons may be due solely to an increase in the adult and marriageable population. Thus the percentage of married persons in the population over fifteen of New York state was :

1855-----	56.3
1865-----	58.3
1875-----	56.1
1890-----	54.0

Down to 1884 the Michigan census did not return the population above fifteen. In Massachusetts the percentage of adults who were married was in 1875, 55.3; in 1885, 52.6; in 1890, 51.2; in 1895, 51.3, a decrease of four per cent in twenty years. From the scattered evidence available it seems probable that the proportion of adults who are married is decreasing.

In foreign countries the proportion of the population who are married ranges from a minimum of about one-fourth to a maximum of nearly one-half. Disregarding India, as not making a part of occidental civilization, the foreign countries and American states with lowest and highest proportion of married in their population were :

Percent. married.		Percent. married.	
Ireland-----	26.4	Arizona-----	30.7
Scotland -----	29.7	Virginia -----	31.1
-----	----	-----	----
Bulgaria -----	42.0	New Hampshire--	41.8
Roumania -----	42.3	Vermont -----	42.1

In the United States there are two main regions in which the percentage of married to the total population is below the average of the country, 35.7. The first includes all the old slave states, the second all the states in the western division except New Mexico. The reason

for the small proportion in the southern states is the large number of children there, but in the western states a stronger influence is the relative fewness of women. Comparatively little is to be learned from a study of conjugal condition, therefore, which does not eliminate or allow for these differences in age groups or sex distribution.

The usual method of determining the conjugal condition of the adult population is to compare the married persons over fifteen with the total population over fifteen, and this limit of age is preferable to that of twenty, employed by the census, both because it facilitates comparison with other countries and because it seems unwise to fix the age of adult life for this purpose at twenty, when there are over 330,000 married persons under that age in the country. Hence in this paper the limit of fifteen years has been employed to separate the marriageables from the unmarried. In our various states and territories the proportion of adults who are married falls between two-fifths and three-fifths of the population, or more accurately between 41.8 per cent in Montana and 61.5 per cent in Oklahoma. The average for the country is 55.3 per cent. There are two main regions in which the proportion of married persons is below the average, the more extensive but less populous area includes all the western division except New Mexico, the second embraces all the Atlantic states from Massachusetts to North Carolina, except New Jersey and West Virginia. As in the east women are in excess among the adult population, and in the far west men are much more in excess, it may be that a primary cause of a low proportion of married persons is found in this dissociation of the sexes. To test the hypothesis the proportion

of males in the adult population of each state has been found and the states divided into three groups, those having over six-tenths of the adult population male, those having between five-tenths and six-tenths male and those having less than five-tenths male. The first class includes all the western division except Utah and New Mexico, and corresponds closely to one great division of states with low proportion of married persons. The third class includes all the states touching the Atlantic from New Hampshire to Louisiana except Delaware, Florida and Mississippi. It shows a general agreement with the other main region of low proportion of married persons, and the hypothesis that a main cause of few marriages lies in dissociation of the sexes by interstate migration is confirmed. It is better, therefore, to study the conjugal condition of each sex by itself.

The returns of the last census make it possible to study the distribution of early marriages for each sex by an analysis of the proportion of persons 15-20 or 20-25 who are married. As the number of married men or boys under 20 is less than 17,000 one must begin for males with the next later age group, 20-25. The percentage of men of this age who are married varies from 6.2 in Montana and 7.0 in Wyoming to 35.0 in Mississippi and 36.9 in South Carolina. The average for the country was 18.9, *i. e.*, nearly one man in five between 20 and 25 years of age is married. The position of the two states with the largest proportion of negroes suggests that early marriages may be more common among men of that race. To test the hypothesis the proportion married has been computed for each race separately. The results for the six states with largest proportion of young married men are as follows :

State.	Married men in each 100 between 20 and 25 years of age.	
	Whites.	Negroes.
South Carolina	25.6	44.6
Mississippi	24.6	42.0
Alabama	29.3	39.5
Georgia	28.0	38.7
Louisiana	22.5	41.5
Arkansas	29.1	36.8

Negro males therefore are unusually likely to marry early.

It is noteworthy that the proportions of married in the two races do not vary together. If numerous early marriages of males be an evidence of widespread ability to live at the standards the people set themselves, the negroes are most prosperous in South Carolina, Mississippi and Louisiana, the whites in Alabama, Arkansas and Georgia. It is also true that the proportion of married men among the whites alone in these six states is far higher than the average for the country as a whole, or for any northern state. Hence southern whites marry in large numbers unusually early.

Early marriages of men are most common in the southeastern states from South Carolina to Louisiana, and least common in the northwestern states from Minnesota to California. But marriages of girls under twenty are most common in the southwest along the Mexican frontier and least common in the northeast from Massachusetts to Maryland. In the United States as a whole about one girl in ten (9.5 per cent) between 15 and 20 is married, but in Massachusetts the proportion is 1 in 25, in New Mexico and Arizona about 1 in 4.

As early marriages of males among southern negroes are far more prevalent than with the whites, one would naturally expect it to be true also that negro girls under

twenty are more usually married than white girls of the southern states. The following table has been prepared for the six states in which early marriages of men were most common :

State.	Married girls in each 100 between 15 and 20 years of age.	
	Whites.	Negroes.
South Carolina -----	13.0	16.9
Mississippi -----	13.0	17.7
Alabama -----	15.1	14.9
Georgia -----	14.9	17.6
Louisiana -----	13.0	17.8
Arkansas -----	20.6	21.5

Early marriages are somewhat more common among negro girls in each of the states except Alabama, but the difference is far less than that between the males of the two races. Even among the whites early marriages are more common than in any of the northern states except those of the far northwest, where the scarcity of women makes their early marriage more general.

The tendency to early marriage on the part of both sexes is thus decidedly greater in the southern states than in the northern. This tendency affects both whites and negroes. Its effects are modified by the unequal distribution of the sexes. Early marriages of men are most common in the south-east because an excess of women is found there to choose from. Early marriages of women are most common in the south-west because of the excess of possible suitors. Early marriages of women are least common in the north-east because of the deficiency of possible suitors, and early marriages of men are least common in the north-west because of the inability of many to find wives. Doubtless these statements are subject to modification. The Spanish American element along the Mexican frontier probably marries unusually early and the opportunities

in the north-east for women to earn wages may induce many to postpone marriage. Yet the general conclusions of the study are not thereby invalidated.

The census figures make it possible, also, to determine how large a proportion of those who attain a ripe maturity of years have never been married.

Among the males between 55 and 65 the smallest proportion of bachelors is found in the southern states of Arkansas, Alabama and Georgia in which 96 out of every 100 of that age are or have been married. On the other hand in the mining states of the far west less than 75 per cent of the old men have ever been married and in Nevada the percentage is as low as 62. The small proportion of elderly bachelors in the south may be due to the negroes. A study of the facts by race, however, shows that among the white men of Georgia, Alabama and Arkansas it is less common to pass through life unmarried than it is anywhere except among the negroes of those and perhaps a few other states.

Elderly unmarried women are least numerous in the predominantly agricultural states of the far west from the Dakotas to Texas and in the Mormon regions of Utah and Idaho. In those states only one woman in twenty-five living at the age of 55-65 is still single, in Utah only one in seventy, and in Oklahoma one in ninety. Along the Atlantic coast from New Hampshire to the Carolinas, especially in Rhode Island and North Carolina, permanent spinsterhood is thrice as common, and in the two states named one elderly woman in every ten is still single. The dissociation of the sexes is probably the main cause of the difference, but mining and perhaps also industrial pursuits seem to be less favorable to marriage than agriculture.

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